

Managing The Internet Protocol

Operating Policy for

Bureau Telecommunications Managers and Information Resources Management Officials

1.0 INTRODUCTION

Use of the Internet Protocol (IP) has grown substantially, presenting challenges both within the Department and worldwide. Many Treasury bureaus are implementing IP or plan to implement it as the protocol of choice for their system modernization efforts. This migration is occurring in a Treasury environment in which there is little shared knowledge of current or planned use of IP addresses, address structures, domains, and traffic data to achieve effective network design and management across the enterprise.

Implementation of IP within the Department is also being affected by the finite amount of IP address space available to satisfy the worldwide demand. To alleviate the need for unique IP addresses, the Internet Engineering Task Force published *Request for Comments (RFC) 1597-Address Allocation for Private Internets*. RFC 1597 provides a mechanism for employing a predefined set of IP addresses for systems, which do not require network layer connectivity outside their enterprise. These addresses have been reserved by the Internet Assigned Numbers Authority for this purpose to conserve IP address space by not allocating globally unique IP addresses to systems private to a given enterprise.

Although most Treasury bureaus are deploying IP based on address assignments previously received from the InterNIC, RFC 1597 is being viewed as an additional or alternative vehicle for generating needed IP addresses. Use of RFC 1597 is actually appropriate for systems connected to Treasury's enterprise network since its Internet Gateway hides the IP addresses of Treasury systems from the Internet. However, the continued proliferation of IP addresses of unknown number and deployment will result in an inefficient if not unmanageable enterprise network with a real potential for address conflict. Given the increasing importance of IP to Treasury, this statement of operating policy is issued to establish the responsibilities for managing the implementation of IP within the Department.

2.0 POLICY

It is the policy of the Department of the Treasury that the Internet Protocol (IP) shall be implemented in a manner which promotes efficient use of the Department's information infrastructure and effective management of its enterprise network. To that end, planning and implementation of IP across the Treasury enterprise will be accomplished in a coordinated, consistent, and coherent manner under the leadership of the Office of

Telecommunications Management (OTM). Treasury bureaus with existing IP implementations shall align their address assignments, structures, and domains with those adopted by for Departmentwide use as required.

3.0 **AUTHORITY**

- a. TO 102-10, Delegation of Authority to the Deputy Assistant Secretary (Information Systems), September 29, 1994.
- b. TD 81-01, Management of Departmental Information Systems, July 25, 1991.
- c. TD 83-01, Acquisition of Federal Information Processing Resources, October 31, 1994.

4.0 **RESPONSIBILITIES**

a. The Director. Office of Telecommunications Management shall:

- (1) serve as the Treasury Address Registration Authority for all IP addresses and domain names assigned to Treasury or its bureaus by the InterNIC and for all IP addresses implemented in accordance with RFC 1597;
- (2) disseminate instructions and procedures for requesting, registering, and assigning IP addresses and domain names within the Department of the Treasury;
- (3) Request from or relinquish to the InterNIC where appropriate IP addresses and domain name assignments for Treasury and its bureaus;
- (4) approve IP addressing and domain naming conventions for Departmentwide use; and
- (5) provide guidance and technical support to Bureau Telecommunications Managers and Information Resources Management Officials for implementing this operating policy.

b. The Program Manager. Treasury Communications System Executive Agent Program, shall support the Treasury Address Registration Authority by:

- (1) establishing and administering a centralized, automated IP address and domain name management capability;
- (2) documenting and maintaining procedures for requesting, registering, and assigning IP addresses and domain names;
- (3) conducting operational reviews with Treasury bureaus to validate requirements for and maintain the integrity of IP addresses and domain name assignments across the Treasury enterprise; and
- (4) recommending IP addressing and domain naming conventions for Departmentwide

implementation.

c. The Senior Information Resources Management Official for each Treasury bureau shall:

- (1) implement this statement of operating policy as appropriate to the information technology in use or planned for the bureau;
- (2) designate appropriate Bureau Telecommunications Managers and/or Information Resources Management Officials with suitable expertise to manage IP within the bureau and interface with the Treasury Address Registration Authority;
- (3) periodically assess the effectiveness of management controls for the use and management of IP within the bureau.

d. Designated Bureau Telecommunications Managers and Information Resources Management Officials shall:

- (1) register all existing IP addresses and domain names assigned to and/or in use by the bureau with the Treasury Address Registration Authority;
- (2) request issuance of all future IP addresses and domain names from the Treasury Address Registration Authority;
- (3) coordinate bureau requirements for IP addresses and domain names and participate in operational reviews called by the Treasury Address Registration Authority to determine effective IP addressing and domain naming conventions for Departmentwide implementation; and
- (4) align bureau address assignments, structures, and domains where required for adherence with those adopted for Departmentwide use.

5.0 REFERENCES

- a. Policy Memorandum, Deputy Assistant Secretary for Information Systems, dated April 28, 1995, Subject: Managing Internet Access.
- b. Federal Information Processing Standard 146-2, Profiles for Open Systems Internetworking Technologies.
- c. Internet Engineering Task Force, Request for Comments (RFC) 1816, U.S. Government Internet Domain Names, August 1995.
- d. Internet Engineering Task Force, Request for Comments (RFC) 1597, Address Allocation for Private Internets, March 1994.
- e. Internet Engineering Task Force, Request for Comments (RFC) 920, Domain

Requirements, October 1984.

- f. Internet Engineering Task Force, Request for Comments (RFC) 1610, Internet Official Protocol Standards, July 1994.

6.0 DEFINITIONS

- a. IP Domains - Tree-structures administrative entities whose purpose and expected use is to divide the name management required of a central administration and assign it to sub-administrations.
- b. Domain Administration - Centralized administrative function controlling the assignment of names within a given domain and providing access to the names and name related information (such as addresses) to users both inside and outside the domain.
- c. IP Address - Network or host computer name. IF addressing uses two types of addresses:
Host Domain Name: some.internet.address (text version) IP Address:
111.222.333.444 (computer/numerical version)

Approved:

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